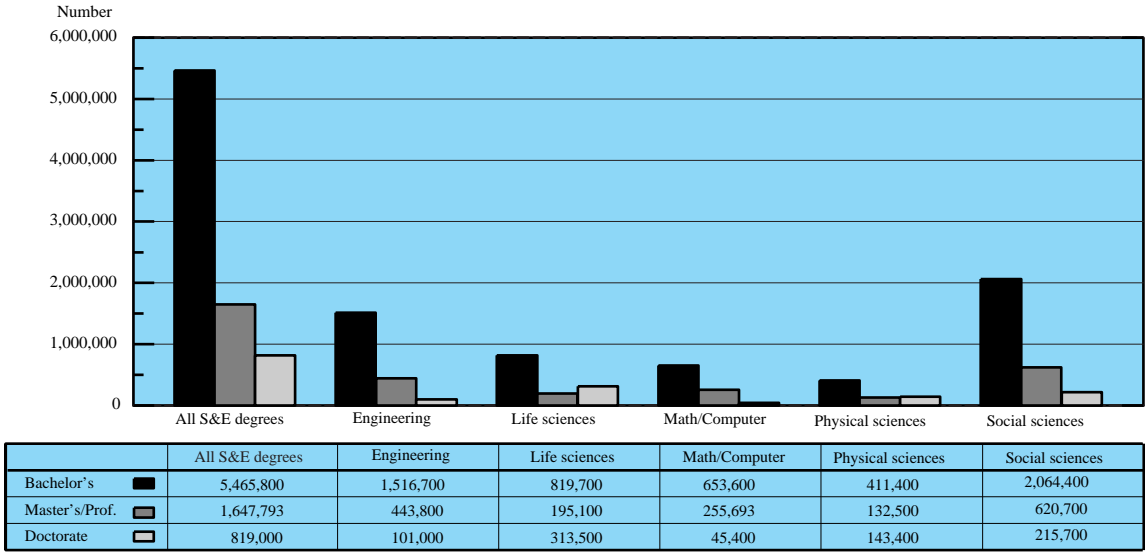


Figure 22. Scientists and engineers, by highest degree: 1993



KEY: S&E = Science and engineering; Prof = Professional.

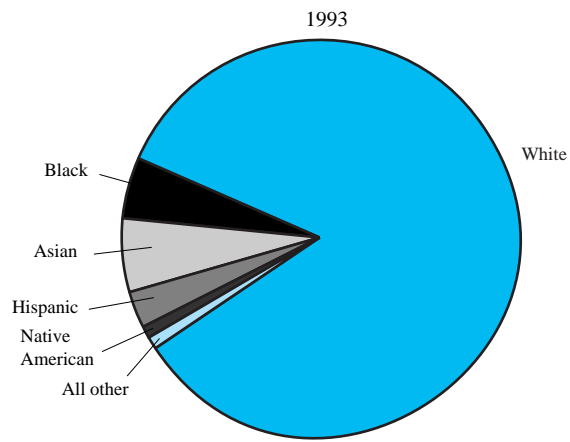
SOURCES: National Science Foundation, 1993 National Survey of College Graduates; and 1993 Survey of Doctoral Recipients, unpublished tabulations.

Figure 23. Federal scientists and engineers, by major occupational group: 1989-93

Occupation	1989	1990	1991	1992	1993
Total science and engineering occupations.....	185,623	189,049	194,726	198,853	196,908
All scientists.....	89,530	92,467	96,919	101,006	101,348
Computer and mathematical scientists.....	25,737	26,725	28,210	29,371	29,691
Life scientists.....	23,082	24,009	25,280	26,765	26,920
Physical scientists.....	23,204	23,725	24,140	24,427	24,118
Social scientists.....	17,507	18,008	19,289	20,443	20,619
All engineers.....	96,093	96,582	97,807	97,847	95,560
Aerospace engineers.....	8,433	8,624	8,777	8,584	8,330
Chemical engineers.....	1,503	1,413	1,344	1,311	1,245
Civil engineers.....	13,945	13,621	13,357	13,231	12,874
Electrical, electronics, and computer engineers.....	31,121	31,899	32,753	32,955	32,374
Industrial engineers.....	3,463	3,419	3,173	3,016	2,725
Mechanical engineers.....	12,186	11,787	11,763	11,532	11,159
Other engineers.....	25,422	25,819	26,640	27,218	26,853

SOURCES: National Science Foundation, Division of Science Resources Studies, Federal Scientists and Engineers: 1989-93, Special Report, NSF 95-336 (Arlington, VA: NSF, 1995); and Office of Personnel Management Central Personnel Data File, unpublished tabulations.

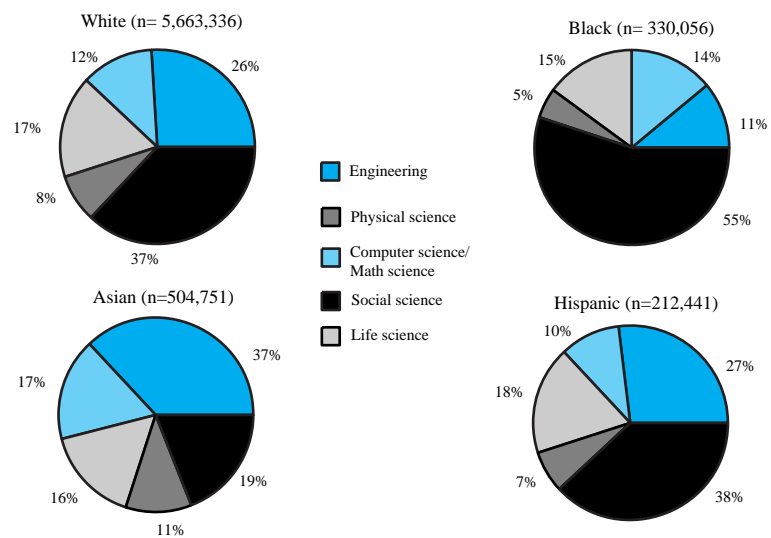
Figure 24. Federal scientists and engineers, by race/ethnicity: 1989-93



Race/ethnicity	1989	1990	1991	1992	1993
Total.....	185,623	189,049	194,726	198,853	196,908
White.....	159,401	161,431	165,564	168,316	166,084
Black.....	8,409	8,712	9,216	9,579	9,682
Asian.....	9,866	10,565	11,192	11,764	11,930
Hispanic.....	5,331	5,687	6,071	6,354	6,394
Native American.....	929	1,002	1,106	1,198	1,249
All other.....	1,517	1,576	1,523	1,516	1,555
No report.....	170	76	54	126	14

SOURCES: National Science Foundation, Division of Science Resources Studies, Federal Scientists and Engineers: 1989-93, Special Report, NSF 95-336 (Arlington, VA: NSF, 1995); and Office of Personnel Management Central Personnel Data File, unpublished tabulations.

Figure 25. College graduates in science and engineering in U.S. labor force, by field of degree and race/ethnicity: 1993



SOURCE: National Science Foundation, Division of Science Resources Studies, 1993 National Survey of College Graduates, unpublished tabulations.

Figure 26. Percentage of women and minority scientists and engineers in labor force,
by field of degree: 1993

Field of degree	Women	Black	Asian	Hispanic	Native American
Total science and engineering.....	30.0	6.2	7.5	3.9	0.3
Sciences, total.....	35.5	5.0	5.5	2.7	0.2
Mathematical/Computer sciences.....	31.7	5.3	10.2	2.5	0.2
Life sciences.....	35.4	4.3	7.0	3.4	0.2
Physical sciences.....	18.8	3.2	9.6	2.5	0.3
Social sciences.....	45.9	7.4	3.9	3.4	0.3
Engineering, total.....	7.3	2.2	10.9	3.3	0.1

SOURCE: National Science Foundation, Division of Science Resources Studies, 1993 National Survey of College Graduates.

Figure 27. Percentage of minorities in U.S. doctoral science and engineering labor force,
by field of degree: 1993

Field of degree	Black	Asian	Hispanic	Native American
Total science and engineering.....	2.1	11.2	2.0	0.4
Sciences.....	2.2	8.4	2.1	0.4
Mathematics.....	6.4	26.5	3.0	0.2
Computer sciences.....	0.3	12.7	2.5	0.3
Physical sciences.....	1.1	12.3	1.9	0.3
Life sciences.....	1.9	8.7	1.8	0.3
Social sciences.....	3.5	3.8	2.4	0.6
Engineering.....	1.3	25.6	1.8	0.2
Chemical engineering.....	0.8	24.2	2.0	0.0
Civil engineering.....	1.9	27.4	1.8	0.2
Electrical engineering.....	1.4	26.7	2.1	0.4
Industrial engineering.....	0.9	21.9	1.6	0.6

SOURCE: National Science Foundation, Division of Science Resources Studies, 1993 Survey of Doctorate Recipients, unpublished tabulations.